

WFO Jackson, Mississippi

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

REPORT FOR:

MONTH YEAR

December 2003

SIGNATURE

Alan Gerard, MIC
In Charge of HSA

DATE

January 8th , 2004

TO: Hydrometeorological Information Center, W/OH2
NOAA / National Weather Service
1325 East West Highway, Room 7230
Silver Spring, MD 20910-3283

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41)

Synopsis...

December was characterized by below normal rainfall over most sections of the HSA. A series of fronts traversed the HSA during the month with mostly light rainfall.

From the 3rd into the 4th, an upper air trough with an associated cold front pushed through the area, producing rainfall over all but southern HSA counties. Rainfall amounts ranged from less than .25 inches over southern and eastern sections to around an inch over northern sections.

A fast moving cold front crossed the area on the 9th into the early hours of the 10th. Rainfall amounts from .25 inches over southern sections to .75 inches over northern sections were observed.

On the 13th, a strong upper air trough with an associated surface low pressure area over southern sections of Louisiana moved across the area. Rainfall amounts ranged from .25 inches over northern sections to over 1 inch over southern sections. Prentiss, Mississippi reported 1.60 inches.

On the 16th, another very fast moving cold front traveled across the area producing less than .25 inches of rainfall except over central and northeastern portions of the HSA where no rain was reported. A secondary cold front pushed through the area on the 18th with no rainfall reported.

On the 23rd, once again, a strong upper air trough with an associated surface cold front moved across the HSA. Rainfall was heaviest from southern portions of Northeast Louisiana, through central Mississippi, into northeastern portions of the HSA. Rainfall amounts ranged from .25 inches to 1.75 inches.

The most significant event of the month occurred on the 29th as a cold front rapidly progressed across the HSA, dumping from 1.00 to 3.00 inches of rainfall. Some heavier storm totals were at Prentiss, MS (2.86 inches); Pickens, MS (2.75 inches); Ross Barnett Reservoir, MS (2.40 inches); 6 NE Brandon, MS (2.25 inches) and D'Lo, MS (2.08 inches).

River and Soil Conditions...

The soil was able to dry out during the month of December, especially over Southeast Arkansas and Northeast Mississippi. Soil moisture was below normal over western and southwestern portions of the HSA while slightly above normal conditions persisted in East-Central Mississippi; elsewhere, soil moisture conditions were near normal.

Moderate rainfall over the upper Big Black River on the 29th produced minor flooding. Remaining rivers in Central Mississippi had only minor rises.

With above normal soil moisture conditions in eastern sections of Mississippi and near normal rainfall forecast for the next 60 to 90 days, flood potential should remain slightly above normal. Flood potential for Northeast Louisiana and Southeast Arkansas should be below normal due to below normal soil moisture conditions and a near-normal 60- to 90- day rainfall forecast. Extreme South Mississippi flood potential should be below normal due to below normal soil moisture and at- or below- normal 60- to 90- day rainfall forecast. Flood potential for the remainder of the area should be near normal.

Rainfall for the month of December...

<u>RIVER BASIN</u>	<u>RAINFALL</u>	<u>DEPARTURE FROM NORMS</u>
Southeast Arkansas (Chicot & Ashley counties)	2.50 to 3.50 inches	Well below normal.
Northeast Louisiana (Tensas, Boeuf, Bayou Macon & Lower Ouachita)	3.25 to 3.50 inches northern sections	Well below normal.
	3.25 to 3.50 inches central sections	Well below normal.
	3.00 to 4.00 inches southern section	Well below normal.
Lower Yazoo	2.50 to 5.00 inches	Below to well below normal.
Big Black	3.50 to 4.25 inches upper basin	Well below normal.
	4.50 to 5.00 inches middle basin	Below normal.
	3.75 to 4.25 inches lower basin	Well below normal.
Homochitto/ Bayou Pierre	2.75 to 3.75 inches	Well below normal.
Pearl (abv Jackson)	3.25 to 5.00 inches	Below to well below normal.
Pearl (Blo Jackson)	3.00 to 3.75 inches	Well below normal.

<i>Pascagoula</i>	<i>2.50 to 3.50 inches over the Leaf basin.</i>	<i>Well below normal.</i>
	<i>2.25 to 2.50 inches over the Black Creek basin.</i>	<i>Well below normal.</i>
	<i>2.75 to 4.25 inches over the Chickasawhay</i>	<i>Well below normal.</i>
<i>Tombigbee tributaries in the JAN HSA</i>	<i>3.25 to 3.50 inches</i>	<i>Well below normal.</i>

The heaviest rainfall amounts in the HSA for the month were: 5.91 inches at Prentiss, MS; 5.14 inches at Lexington, MS; 4.98 inches at Ross Barnett Reservoir, MS; 4.88 inches at Pickens, MS; 4.61 inches at Canton, MS; and 4.60 inches at 6 NW Satartia, MS and Newport, MS.

At the Jackson WFO, the December monthly rainfall was 3.33 inches, which was 2.01 inches below normal. Total rainfall for the year 2003 was 58.69 inches, which was 2.74 inches above normal.

At Meridian Key Field, the December monthly rainfall was 2.63 inches, which was 2.68 inches below normal. Total rainfall for the year 2003 was 69.98 inches, which was 11.33 inches above normal.

Mississippi River...

The Mississippi River from Arkansas City to Natchez experienced its monthly maximum stage early in the month. The river receded to its monthly minimum stage by mid month. The remainder of the month saw the river rise for the next week; thereafter, only minor fluctuations in the river stage occurred. The river at all points was at or above seasonal norms for all of the month. The provisional high and low stages for December are listed below:

<i>Location</i>	<i>High Stage(ft)</i>	<i>Date</i>	<i>Low Stage(ft)</i>	<i>Date</i>
<i>Arkansas City, AR</i>	<i>22.25</i>	<i>12/03</i>	<i>15.76</i>	<i>12/16</i>
<i>Greenville, MS</i>	<i>33.82</i>	<i>12/04</i>	<i>27.20</i>	<i>12/16</i>
<i>Vicksburg, MS</i>	<i>27.62</i>	<i>12/05</i>	<i>20.85</i>	<i>12/17</i>
<i>Natchez, MS</i>	<i>34.20</i>	<i>12/05</i>	<i>27.90</i>	<i>12/18</i>

Products issued...

*Total Flood Warning products issued: 1
Total Flood Statement products issued: 13
Daily Rainfall Products (RRA'S) issued 31
Daily River Forecast Products (RVS'S) issued: 31
Daily River Stage products (RVA'S) issued 31*

*Marty V. Pope
Service Hydrologist*

Note: Stage and precipitation data was furnished with cooperation from Mississippi, Louisiana, and Arkansas, N.W.S. Cooperative Observers, United States Geological Survey, United States Army Corps of Engineers and the Pearl River Valley Water Supply District, Pat Harrison Waterway District, Pearl River Basin Development District and the Mississippi Department of Environmental Quality.

*cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
LMRFC
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
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